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EXAMINER

MA, JOHNNY

ART UNIT PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/517,818	Applicant(s) OZ ET AL.	
	Examiner Johnny Ma	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,3,5,7,8 and 23-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,5,7,8 and 23-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 12/15/2005 have been fully considered but they are not persuasive.

Applicant first argues that “[t]he combination of Grossman and Tsuria does not yield the present invention.” Specifically, Applicant argues “the combination of Grossman and Tsuria would fail to teach or suggest downloading selected data sets according to use profile information and/or an interactive session in which case the display of data stream information is delayed until termination of the interactive session or expiration or a predetermined period inactivity by a user as recited in claims 23 and 31.” However, as noted in the previous Office Action, and reiterated below, the Grossman and Tsuria references were not relied upon “to teach or suggest downloading selected data sets according to use profile information and/or an interactive session in which case the display of data stream information is delayed until termination of the interactive session or expiration or a predetermined period inactivity by a user as recited in claims 23 and 31. These features were met by the Picco et al. and Howe et al. references that have also been addressed by the Applicant, see below.

Applicant further argues “[t]here is no suggestion or motivation to combine Picco, directed at permitting a broadcast to deliver localized content to be inserted into the programming data, with Grossman and/or Tsuria, each directed at schemes for displaying information during ICIs or channel changing intervals.” However, Applicant concedes that the Grossman, Tsuria, and Picco et al. references all discuss applying transmitted advertising information to a television receiver” (Remarks, pg. 2) but draws a distinction that the problems

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addressed by Grossman/Tsuria and Picco are distinct and that there is no suggestion or motivation to combine the references that can be found in the references themselves. In response to applicant's argument that Picco is in fact directed at a problem that is wholly unrelated to that discussed by Grossman and thus is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, as admitted by Applicant, both the Grossman and Picco references are directed towards applying transmitted advertising information to a television receiver display, providing advertisements to viewers. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Picco et al. reference teaches such a motivation wherein it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. downloading of advertisements with the Picco et al. downloading according to user profile for the purpose of allowing advertisers to be able to more effectively reach viewers who are most likely to be interested in their product often at a lower total cost since the advertiser does not have to purchase the rights to advertise in the entire market (Picco 2:62-67). The examiner further respectfully disagrees with Applicant's assertion

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that “[t]he Office Action recites no particular motivation for the combination” in view of the motivation that was discussed in the previous Office Action and taught by Picco as discussed above. The examiner also respectfully disagrees that “the purpose behind combining Grossman/Tsuria and Picco is suggested solely by hindsight where the motivation to combine, as previously discussed, is clearly taught by the Picco et al. reference and cited in the previous Office Action.

Applicant also argues that “there is no reasonable expectation of success, because in Picco the local content is inserted into the programming data stream only when the local content space is identified within the compressed digital data stream...and thus displaying of local content in Picco is dependent on the availability of the local content space within the compressed digital data stream.” In response to applicant's argument that there is no reasonable expectation of success, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Here, the Picco et al. reference would suggest to those of ordinary skill in the art to use targeted advertisements in order to allow advertisers to be able to more effectively reach viewers who are most likely to be interested in their product often at a lower total cost since the advertiser does not have to purchase the rights to advertise in the entire market (Picco 2:62-67)

Applicant further argues that “[t]here is no suggestion or motivation to combine Howe, directed at interactive sessions relating to the content of television broadcasts, with

Grossman/Tsuria directed at displaying visual images in response to a channel change.” In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, in the knowledge generally available to one of ordinary skill in the art. As discussed in the previous Office Action, the Grossman et al. reference discloses advertisement interactivity wherein “the header information associated with an image can include...identification information. The identification information can include telephone, address, internet address, web page address...Additionally, the identification information can be stored at cable headend 12, at a predetermined internet address or by a company providing the optical disk or magnetic tape containing the advertising information to the cable headend 12 for later access by the user” (Grossman et al. 7:43-67). The Howe et al. reference discloses “the user has initiated an interactive transaction session with a remote host by selecting an interactive element associated with the first one of the information elements” wherein “Content Provider B 42 may decide to transmit a broadcast, such as a commercial, having an associated interactive component or application...If the subscriber selects the displayed button, the STB 100 establishes a session with interactive server 5 and receives the interactive program or application associated with the broadcast” (Howe 8:6-27) and “[i]nteraction by subscriber 70 with STB 100 may be by an suitable means, but is preferably by conventional infrared (IR) remote control” (Howe 22:28-30)

wherein the initiation of an interactive program advertisement application session results in the delaying of program display until “[t]he program or application is terminated, or when the user signals the set top box that viewing the second program or application is no longer desired” (Howe 4:15-5:14; 7:11-8:27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. advertisements with interactivity capability with the Howe et al. interactive transaction session while the advertisement is being displayed for the purpose of allowing the user to interact with the advertisement while it is being displayed to increase the likelihood of a purchase by the user.

In regard to Applicant’s argument that “[t]he rejection of claims 5, 32, and 33 is erroneous, because there is no suggestion or motivation to combine Nathan, directed at recording and reproduction of audiovisual information, with Grossman/Tsuria directed at displaying visual images in response to a channel change.” In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Furthermore, Grossman/Tsuria and Nathan are all directed towards the display of content on a television display. The Nathan reference was relied upon to teach the well known method of buffering content prior for display to a user. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. storing of interchannel messages with the Nathan et al.

queue using a memory and buffer for the purpose of displaying interchannel messages in order of receipt and a method for memory management so as to ensure the proper flow of data for display.

Regarding Applicant's argument that "[c]laim 28 is Patentable over the combination of Grossman, Picco, Kitsukawa, and Tsuria is improper.," Applicant specifically argues "[t]here is no indication in Grossman that the information displayed when the user changes channels is in any way dependent on or related to the content of the television picture...Kitsukawa is concerned with displaying information directly related to the content of the television picture." The examiner respectfully disagrees. The Grossman reference discloses interactivity within an advertisement for obtaining additional information (Grossman 7:49-67). Similarly, the Kitsukawa reference discloses obtaining additional information regarding products and services, such as those in advertisements (Kitsukawa 10:43-60). Furthermore, as cited in the previous Office Action, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. and Howe et al. interchannel interactive advertising with the Kitsukawa et al. electronic transaction over the Internet for the purpose of providing the user the capability of purchasing an advertised product immediately and to increase sales of an advertised product or service over a the Internet, a well known and readily accessible network for facilitating communication of data.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person



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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 23, 2, 3, 7, 8, 24-27, 29-31, and 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grossman et al. (US 5,907,321) in further view of Tsuria (US 5,786,845), Picco et al. (US 6,029,045), and Howe et al. (US 5,892,508).

As to claim 23, note the Grossman et al. reference that discloses a method for transmitting and displaying an interchannel interval image in a cable system. Note, the Grossman et al. reference discloses “downloading from a server selected data sets” wherein “[t]he visual image transmitted from cable headend [server] 12 preferably resides in RAM 44 of subscriber unit 24a. It is stored [downloaded] in RAM 44 by microprocessor 60” (Grossman 6:33-36). The claimed “the selected data sets representing information elements for display to a user during switching events” and “displaying a first one of the information elements in response to initiation of a first switching event” is met by “subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20” (Grossman 3:41-45) wherein the channel change (first switching event) is “characterized by unavailability of information from the server for display” (Grossman 3:47-55). The claimed “discontinuing the display of the first one of the information elements and displaying the data stream information from the server when it becomes available for such display” is met by “the visual image from the cable headend is displayed on television receiver 30 during ICI” (Grossman 3:53-55).

Also note, the Grossman et al. reference discloses “[i]n addition to receiving [downloading] a constant stream of changing images and displaying a current image, the method of the present invention can receive and store a number of images in RAM 14 for access and display at a later

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time” (Grossman 8:21-25). However, the Grossman et al. reference does not specifically disclose downloading periodically and downloading according to user profile information. Now note the Tsuria reference that also discloses the display of advertisement messages during the changing of channels. The claimed “periodically downloading from a server” is met by “advertisements may be periodically downloaded from CATV source [server] 15” (Tsuria 4:20-21). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. downloading of visual images from a server with the Tsuria periodically downloading data sets from a server for the purpose of providing a method of scheduling downloading of data sets that provides updating of visual images while alleviating the system load of constantly downloading visual images for display. Further note the Picco et al. reference that discloses a system and method for inserting local content into programming content. The claimed “downloading from a server selected data sets according to user profile information” is met by “the pieces of local content downloaded to the set-top box may have a plurality of different content profiles and only the pieces of local content with content profiles that match some predetermined criteria [such as user preferences] stored in the set-top box are stored in the set-top box” (Picco 8:10-15; 6:23-34). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. downloading of advertisements with the Picco et al. downloading according to user profile for the purpose of allowing advertisers to be able to more effectively reach viewers who are most likely to be interested in their product often at a lower total cost since the advertiser does not have to purchase the rights to advertise in the entire market (Picco 2:62-67). The Grossman et al. reference also discloses advertisement

interactivity wherein “the header information associated with an image can include...identification information. The identification information can include telephone, address, internet address, web page address...Additionally, the identification information can be stored at cable headend 12, at a predetermined internet address or by a company providing the optical disk or magnetic tape containing the advertising information to the cable headend 12 for later access by the user” (Grossman et al. 7:43-67). However, the Grossman et al. reference does not specifically disclose an interactive session and delaying the display of the data stream information from the user until termination of the interactive session or expiration of a predetermined period of inactivity by the user. Now note the Howe et al. reference that discloses a system and method for providing television services. The Howe et al. reference discloses “the user has initiated an interactive transaction session with a remote host by selecting an interactive element associated with the first one of the information elements” wherein “Content Provider B 42 may decide to transmit a broadcast, such as a commercial, having an associated interactive component or application...If the subscriber selects the displayed button, the STB 100 establishes a session with interactive server 5 and receives the interactive program or application associated with the broadcast” (Howe 8:6-27) and “[i]nteraction by subscriber 70 with STB 100 may be by an suitable means, but is preferably by conventional infrared (IR) remote control” (Howe 22:28-30). The claimed “in which case displaying the data stream information from the server is delayed until termination of the interactive session or expiration of a predetermined period of inactivity by the user” is met by the initiation of an interactive program advertisement application session resulting in the delaying of program display until “[t]he program or application is terminated, or when the user signals the set top box that viewing the second

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program or application is no longer desired” (Howe 4:15-5:14; 7:11-8:27). Note the Howe et al. discloses an “interactive transaction session” wherein interactive application includes interactively ordering services and/or programs (Howe 1:27-40). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. advertisements with interactivity capability with the Howe et al. interactive transaction session while the advertisement is being displayed for the purpose of allowing the user to interact with the advertisement while it is being displayed to increase the likelihood of a purchase by the user.

As to claim 2, the claimed wherein downloading the selected data sets comprises storing the selected data sets in buffer of a digital set top box. The Grossman et al. reference discloses cable subscriber systems 16a-n of cable television system 10 also include respective subscriber units 24a-n. Subscriber units 24a-n receive the television channels from cable headend 12, and, under the control of remote control device 20, select a television channel from the received channels (Grossman et al. 3:20-25). The Grossman et al. reference also discloses the signals representative of the visual image transmitted from cable headend 12 can be analog or digital signals, although digital signals are preferred (Grossman et al. 6:55-57). The Grossman et al. reference also discloses if the visual image is to be displayed the signals representative of the image are applied from RAM 44 to graphics generator 68 by way of bus 66 to be formatted for display on television receiver 30. Although the signals representative of the image are preferably stored in RAM 44 in this manner for later display, the signals can be immediately displayed when they are received by tuner 72 in an alternate embodiment of the invention (Grossman et al. 7:5-12).

As to claim 3, the claimed wherein initiation of the first switching event comprises receiving at the digital set top box a signal from a television remote control device to switch channels. The Grossman et al. reference discloses in the method of the present invention a subscriber unit such as subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20 (Grossman et al. 3:40-44).

As to claim 7, the claimed “wherein the first information element comprises data associated with the data stream information from the server.” Note the Grossman et al. reference discloses “advertising information for display of a visual image on television receiver 30 from cable headend 12 by way of transmission cable 14. The advertising information from cable headend 12 can be any information of any commercial value...” (Grossman 3:31-45). However, the Grossman et al. reference does not specifically disclose the advertising information (information element) comprising data associated with the data stream information from the server. Now note the Tsuria reference that providing advertisements associated with the data stream information (Tsuria 2:1-4). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. advertisements with the Tsuria information message associated with the data stream for the purpose of providing advertisements to a viewer that is more likely suited to their current mood in order to increase the effect of the advertisement.

As to claim 8, please see rejection of claim 23.

As to claim 24, please see rejection of claim 23.

As to claims 25 and 26, the claimed “wherein the server is further configured to store the user profile information” Note the Grossman et al. and Picco et al. reference discloses the storage of user profile information at the set top box as discussed in the rejection of claim 31. Also note the Picco et al. reference further discloses “wherein the server is further configured to store the user profile information,” the user profile data is transmitted to the system operator at some predetermined interval (Picco et al. 10:57-58), a copy of the user profile is stored both on the set top box and head end. The claimed “wherein the user profile information is stored in a data source accessible by the server” is met by the storage Agent 150 [accessible data store unit] that stores the profile information received as illustrated in Figure 4. Therefore, the examiner submits that it would have been further obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. and Picco et al. combination teaching the use of a user profile with the Picco et al. storage of the user profile information at a server or data store unit accessible by the server for the purpose of enticing advertisers to provide advertisements thus increases the program providers revenue and tailoring advertisements for transmission (Picco 7:9-32).

As to claim 27, note the Grossman et al. and Picco et al. combination discloses the storage of user profile information in a data store unit accessible by the server as discussed in the rejection of claims 37-38. However, the Grossman et al. and Picco et al. combination is silent as the storage of data stream information. Nevertheless, the examiner gives Official Notice that it is notoriously well known in the art to store programming in a data source so that it may be readily available for broadcast and to facilitate scheduling of programming. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify the Grossman et al. and Picco et al. accessible data unit storing profile information accordingly for the purpose of providing programming readily accessible by the headend for broadcasting in a well known manner.

As to claim 29, the claimed wherein the user profile information is based on one or more of: the user's television viewing habits, the user's purchasing habits, and the user's use of one or more television services. The Grossman et al. reference discloses a method for displaying interchannel messages. However, the Grossman et al. reference does not disclose the use of profile information. The Picco et al. reference discloses targeting advertisements using profile information where in accumulating additional user preference data, the set-top box may accumulate data about when the user saw which programs and how many times the user watched a particular program (Picco et al. 11:9-13). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. interchannel messages with the Picco et al. targeted advertisements and monitoring of viewing habits for the purpose of enabling the targeting of interchannel advertisements to a user so that user may view messages of interest.

As to claim 30, the claimed "wherein the information elements comprise one or more of: advertisement, information regarding the data stream information, information regarding a television program, information regarding a television channel, personal information regarding the user, a segment of the data stream information, or local or regional information" is met by the advertising information from cable headend 12 can be any information of any commercial value, such as a corporate logo, a trademark or a textual message. The advertising information can also be, for example, public service messages such as warnings against smoking, warnings against

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drinking while pregnant or reminders to immunize children. In the method of the present invention a subscriber unit such as subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20 (Grossman et al. 3:35-45).

As to claim 31, note the Grossman et al. reference that discloses a method for transmitting and displaying an interchannel interval image in a cable system.

The claimed “a server configured to provide a data stream transmission” is met by “a cable system including a cable headend (server) having a plurality of cable channels and a subscriber unit with a video display, a receiver for receiving the cable channels and applying the selected cable channel to the video display in order to display an image” (Grossman 2:24-30). The Grossman et al. reference also discloses a “digital set top box” (Grossman 6:8-11; 6:55-57) configured to “download from the server selected data sets” wherein “[t]he visual image transmitted from cable headend [server] 12 preferably resides in RAM 44 of subscriber unit 24a. It is stored [downloaded] in RAM 44 by microprocessor 60” (Grossman 6:33-36) “the selected data sets being included within the data stream” (Grossman 6:41-57). The claimed selected data sets “representing information elements for display to a user during switching events” and “display a first one of the information elements in response to initiation of a first switching event” is met by “subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20” (Grossman 3:41-45) wherein the channel change (first switching event) is “characterized by unavailability of information from the server for display” (Grossman 3:47-55). The claimed “discontinue the display of the first one of the information elements and displaying



the data stream information from the server when it becomes available for such display” is met by “the visual image from the cable headend is displayed on television receiver 30 during ICI” (Grossman 3:53-55). Also note, the Grossman et al. reference discloses “[i]n addition to receiving [downloading] a constant stream of changing images and displaying a current image, the method of the present invention can receive and store a number of images in RAM 14 for access and display at a later time” (Grossman 8:21-25). However, the Grossman et al. reference does not specifically disclose downloading periodically and downloading according to user profile information. Now note the Tsuria reference that also discloses the display of advertisement messages during the changing of channels. The claimed “periodically download from the server” is met by “advertisements may be periodically downloaded from CATV source [server] 15” (Tsuria 4:20-21). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. downloading of visual images from a server with the Tsuria periodically downloading data sets from a server for the purpose of providing a method of scheduling downloading of data sets that provides updating of visual images while alleviating the system load of constantly downloading visual images for display. Further note the Picco et al. reference that discloses a system and method for inserting local content into programming content. The claimed “download from the server selected data sets according to user profile information” is met by “the pieces of local content [advertisements] downloaded to the set-top box may have a plurality of different content profiles and only the pieces of local content with content profiles that match some predetermined criteria [such as user preferences] stored in the set-top box are stored in the set-top box” (Picco 8:10-15; 6:23-34). Therefore, the examiner submits that it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. downloading of advertisements with the Picco et al. downloading according to user profile for the purpose of allowing advertisers to be able to more effectively reach viewers who are most likely to be interested in their product often at a lower total cost since the advertiser does not have to purchase the rights to advertise in the entire market (Picco 2:62-67). The Grossman et al. reference also discloses advertisement interactivity wherein "the header information associated with an image can include...identification information. The identification information can include telephone, address, internet address, web page address...Additionally, the identification information can be stored at cable headend 12, at a predetermined internet address or by a company providing the optical disk or magnetic tape containing the advertising information to the cable headend 12 for later access by the user" (Grossman et al. 7:43-67). However, the Grossman et al. reference does not specifically disclose an interactive session and delaying the display of the data stream information from the user until termination of the interactive session or expiration of a predetermined period of inactivity by the user. Now note the Howe et al. reference that discloses a system and method for providing television services. The Howe et al. reference discloses "the user has initiated an interactive transaction session with a remote host by selecting an interactive element associated with the first one of the information elements" wherein "Content Provider B 42 may decide to transmit a broadcast, such as a commercial, having an associated interactive component or application...If the subscriber selects the displayed button, the STB 100 establishes a session with interactive server 5 and receives the interactive program or application associated with the broadcast"

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(Howe 8:6-27) and “[i]nteraction by subscriber 70 with STB 100 may be by an suitable means, but is preferably by conventional infrared (IR) remote control” (Howe 22:28-30).

The claimed “in which case displaying the data stream information from the server is delayed until termination of the interactive session or expiration of a predetermined period of inactivity by the user” is met by the initiation of an interactive program advertisement application session resulting in the delaying of program display until “[t]he program or application is terminated, or when the user signals the set top box that viewing the second program or application is no longer desired” (Howe 4:15-5:14; 7:11-8:27). Note the Howe et al. discloses an “interactive transaction session” wherein interactive application includes interactively ordering services and/or programs (Howe 1:27-40). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. advertisements with interactivity capability with the Howe et al. interactive transaction session while the advertisement is being displayed for the purpose of allowing the user to interact with the advertisement while it is being displayed to increase the likelihood of a purchase by the user.

As to claim 34, please see rejection of claim 31.

As to claim 35, the claimed “wherein the information elements comprise one or more of: advertisement, information regarding the data stream information, information regarding a television program, information regarding a television channel, personal information regarding the user, a segment of the data stream information, or local or regional information” is met by the advertisements as discussed in the rejection of claim 31 and “the advertising information from cable headend 12 can be any information of any commercial value, such as a corporate logo, a trademark or a textual message. The advertising information can also be, for example, public

service messages such as warnings against smoking, warnings against drinking while pregnant or reminders to immunize children. In the method of the present invention a subscriber unit such as subscriber unit 24a displays the visual image received from cable headend 12 on television receiver 30 when a user of subscriber unit 24a changes channels using remote control device 20” (Grossman et al. 3:35-45).

As to claim 36, the claimed “wherein the digital set top box is further configured to store the user profile information” is met by that discussed in the rejection of claim 31, wherein predetermined criteria such as user preferences are stored in the set-top box are stored in the set-top box (Picco 8:10-15; 6:23-34).

As to claims 37 and 38, the claimed “wherein the server is further configured to store the user profile information” Note the Grossman et al. and Picco et al. reference discloses the storage of user profile information at the set top box as discussed in the rejection of claim 31. Also note the Picco et al. reference further discloses “wherein the server is further configured to store the user profile information,” the user profile data is transmitted to the system operator at some predetermined interval (Picco et al. 10:57-58), a copy of the user profile is stored both on the set top box and head end. The claimed “further comprising a data store unit accessible by the server and configured to store the user profile information” is met by the storage Agent 150 [accessible data store unit] that stores the profile information received as illustrated in Figure 4. Therefore, the examiner submits that it would have been further obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. and Picco et al. combination teaching the use of a user profile with the Picco et al. storage of the user profile information at a server or data store unit accessible by the server for the purpose of enticing

advertisers to provide advertisements thus increases the program providers revenue and tailoring advertisements for transmission (Picco 7:9-32).

As to claim 39, note the Grossman et al. and Picco et al. combination discloses the storage of user profile information in a data store unit accessible by the server as discussed in the rejection of claims 37-38. However, the Grossman et al. and Picco et al. combination is silent as the storage of data stream information. Nevertheless, the examiner gives Official Notice that it is notoriously well known in the art to store programming in a data source so that it may be readily available for broadcast and to facilitate scheduling of programming. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. and Picco et al. accessible data unit storing profile information accordingly for the purpose of providing programming readily accessible by the headend for broadcasting in a well known manner.

4. Claims 5, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grossman et al. (US 5,907,321) in further view of Tsuria (US 5,786,845), Picco et al. (US 6,029,045), Howe et al. (US 5,892,508), and Nathan et al. (US 6,182,126)..

As to claim 5, the claimed wherein downloading the selected data sets comprises storing those of the selected data sets associated with the first information element in a buffer of a digital set top box and storing others of the selected data sets associated with others of the information elements in a memory of the digital set top box, wherein corresponding ones of the others of the selected data sets stored in the memory of the digital set top box replace those of the selected data in the buffer of the digital set top box once the first information element is displayed. The Grossman et al. reference discloses alternately, each of the images can be transmitted at the

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beginning of its period, stored for the duration of the period and written over by the next image at the beginning of the next period. In these embodiments, the user views whichever image is current when the channel is changed (Grossman et al. 8:6-10). The Grossman et al. reference also discloses in addition to receiving a constant stream of changing images and displaying a current image, the method of the present invention can receive and store a number of images in RAM 44 for access and display at a later time (Grossman et al. 8:21-24). However, the Grossman et al. reference does not specifically disclose storing first information element in a buffer and others in a memory wherein corresponding ones of the others of the selected data sets stored in the memory of the digital set top box replace those of the selected data in the buffer of the digital set top box once the first information element is displayed. The Nathan et al. reference discloses button (1038) allows ordering of the selection which is then downloaded according to the above-described mode (Nathan et al. 6:66-67). The Nathan et al. reference also discloses a SPM module allows the system to manage the musical song or video selections in the queue for their playback in the order of selection (Nathan et al. 8:22-24). The Nathan et al. reference also discloses audio and display buffers (Nathan et al.; Figure 2 “110,111”). The Nathan et al. reference discloses when the selection has been reproduced in its entirety, it is removed from the queue file and the system checks if there are others in the queue file. If there is another, the system immediately starts to play the selection (Nathan et al. 9:54-57). Accordingly, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. storing of interchannel messages with the Nathan et al. queue using a memory and buffer for the purpose of displaying

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interchannel messages in order of receipt and a method for memory management so as to ensure the proper flow of data for display.

As to claim 32, the claimed wherein the digital set top box includes both a buffer and a memory and is configured to store those of the selected data sets representing a first one of the information elements in the buffer and others of the selected data sets representing other information elements in the memory. The Grossman et al. reference discloses alternately, each of the images can be transmitted at the beginning of its period, stored for the duration of the period and written over by the next image at the beginning of the next period. In these embodiments, the user views whichever image is current when the channel is changed (Grossman et al. 8:6-10). The Grossman et al. reference also discloses in addition to receiving to receiving a constant stream of changing images and displaying a current image, the method of the present invention can receive and store a number of images in RAM 44 for access and display at a later time (Grossman et al. 8:21-24). However, the Grossman et al. reference does not specifically disclose storing first information element in a buffer and others in a memory wherein corresponding ones of the others of the selected data sets stored in the memory of the digital set top box replace those of the selected data in the buffer of the digital set top box once the first information element is displayed. The Nathan et al. reference discloses button (1038) allows ordering of the selection which is then downloaded according to the above-described mode (Nathan et al. 6:66-67). The Nathan et al. reference also discloses a SPM module allows the system to manage the musical song or video selections in the queue for their playback in the order of selection (Nathan et al. 8:22-24). The Nathan et al. reference also discloses audio and display buffers (Nathan et al.; Figure 2 “110,111”). The Nathan et al. reference discloses when

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the selection has been reproduced in its entirety, it is removed from the queue file and the system checks if there are others in the queue file. If there is another, the system immediately starts to play the selection (Nathan et al. 9:54-57). Accordingly, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. storing of interchannel messages with the Nathan et al. queue using a memory and buffer for the purpose of displaying interchannel messages in order of receipt and a method for memory management.

As to claim 33, the claimed wherein the digital set top box is further configured to replace those of the selected data sets representing the first one of the information elements in the buffer with at least some of the others of the selected data sets representing other information elements in the memory after displaying the first information element. Please see rejection of claim 32.

5. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grossman et al. (US 5,907,321) in further view of Tsuria (US 5,786,845), Picco et al. (US 6,029,045), Howe et al. (US 5,892,508), and Kitsukawa et al. (US 6,282,713 B1).

As to claim 28, the claimed wherein the remote host comprises an Internet host and the interactive transaction session comprises an electronic shopping transaction. Note the Grossman et al. and Howe et al. combination as discussed in the rejection of claim 23 teaches “the interactive transaction session comprises an electronic shopping transaction” and access of a remote server over a network. However, the Grossman et al. and Howe et al. combination does not specifically disclose an Internet host. The Kitsukawa et al. reference discloses in an alternate embodiment, the coupon information is redeemed by the viewer via an electronic link established



with a merchandise retailer or dealer, wherein the electronic link allows the merchandise retailer to read the stored coupon information from the recording medium of the viewer at such time as the viewer electronically orders or purchases merchandise (Kitsukawa et al. 12:1-7). The Kitsukawa et al. reference also discloses in one embodiment, the coupon information may comprise electronic catalogs that contain information on additional products and service offered by the particular manufacturer and dealer and service provider, electronic links to product manufacturers and dealers that comprise electronic mail and voice messaging links, and electronic links over the Internet to the Web pages of product manufacturers and dealers, but the embodiment is not so limited (Kitsukawa et al. 13:23-31). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Grossman et al. and Howe et al. interchannel interactive advertising with the Kitsukawa et al. electronic transaction over the Internet for the purpose of providing the user the capability of purchasing an advertised product immediately and to increase sales of an advertised product or service over a the Internet, a well known and readily accessible network for facilitating communication of data.

### *Conclusion*

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny Ma whose telephone number is (571) 272-7351. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jm

  
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